

# Seasonal Weather Brief (Spring/Summer Hazards)

OL-A, 18th Weather  
Squadron

Updated 30 Jan 03

# Overview

- Davison Army Airfield Climo
- Weather Watches/Warnings/Advisories
- Spring/Summer Weather Patterns
- Precipitation Types
- Seasonal Unique Aviation Hazards
- General Weather Information
- Online Flight Weather briefing Requests
- Space Weather Products

# Davison AAF Climatology

	APR	MAY	JUN	JUL	AUG		
• <b>EXTRM MAX</b>			<b>96</b>	<b>97</b>	<b>100</b>	<b>104</b>	<b>105</b>
• <b>AVG MAX</b>	<b>65</b>		<b>73</b>	<b>85</b>	<b>89</b>	<b>86</b>	
• <b>AVG MIN</b>	<b>49</b>		<b>54</b>	<b>63</b>	<b>70</b>	<b>67</b>	
• <b>EXTRM MIN</b>			<b>19</b>	<b>29</b>	<b>38</b>	<b>45</b>	<b>44</b>
• <b>AVG PRECIP</b>			<b>3.2</b>	<b>3.8</b>	<b>3.5</b>	<b>3.9</b>	<b>4.2</b>
• <b>AVG SNOWFALL</b>	<b>0.1</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	
• <b>MAX SNOWFALL</b>				<b>2.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
• <b>AVG RH (05L)</b>			<b>77%</b>	<b>87%</b>	<b>90%</b>	<b>89%</b>	<b>89%</b>
• <b>AVG RH (15L)</b>				<b>41%</b>	<b>46%</b>	<b>51%</b>	<b>53%</b>
	<b>50%</b>						
• <b># TSTM DAYS</b>			<b>3</b>	<b>5</b>	<b>7</b>	<b>8</b>	<b>6</b>

# Davison Wx Watches

(Summer Season)

- Tornadoes (4 hour desired lead time (DLT))
- Surface Wind GTE 50 knots (4 hour DLT)
- Hail (GTE 1/2 inch, 4 hour DLT)
- Freezing Precipitation (4 hour DLT)
- Heavy Snowfall (GTE 2 inches in 12 hours, 4 hour DLT)
- Lightning from Thunderstorms W/I 5nm (30 minute DLT)

# Davison Wx Warnings

(Summer Season)

- Tornadoes (15 Minutes DLT)
- Surface Wind (GTE 50 knots, 2 hour DLT)
- Hail (GTE 1/2 inch, 2 hour DLT)
- Surface Wind (35 - 50 knots, 1 hour DLT)
- Heavy Rain/Snow (GTE 2 inches in 12 hours, 2 hour DLT)
- Lightning from Thunderstorms W/I 5nm (Now an observed warning)

# Davison Wx Advisories

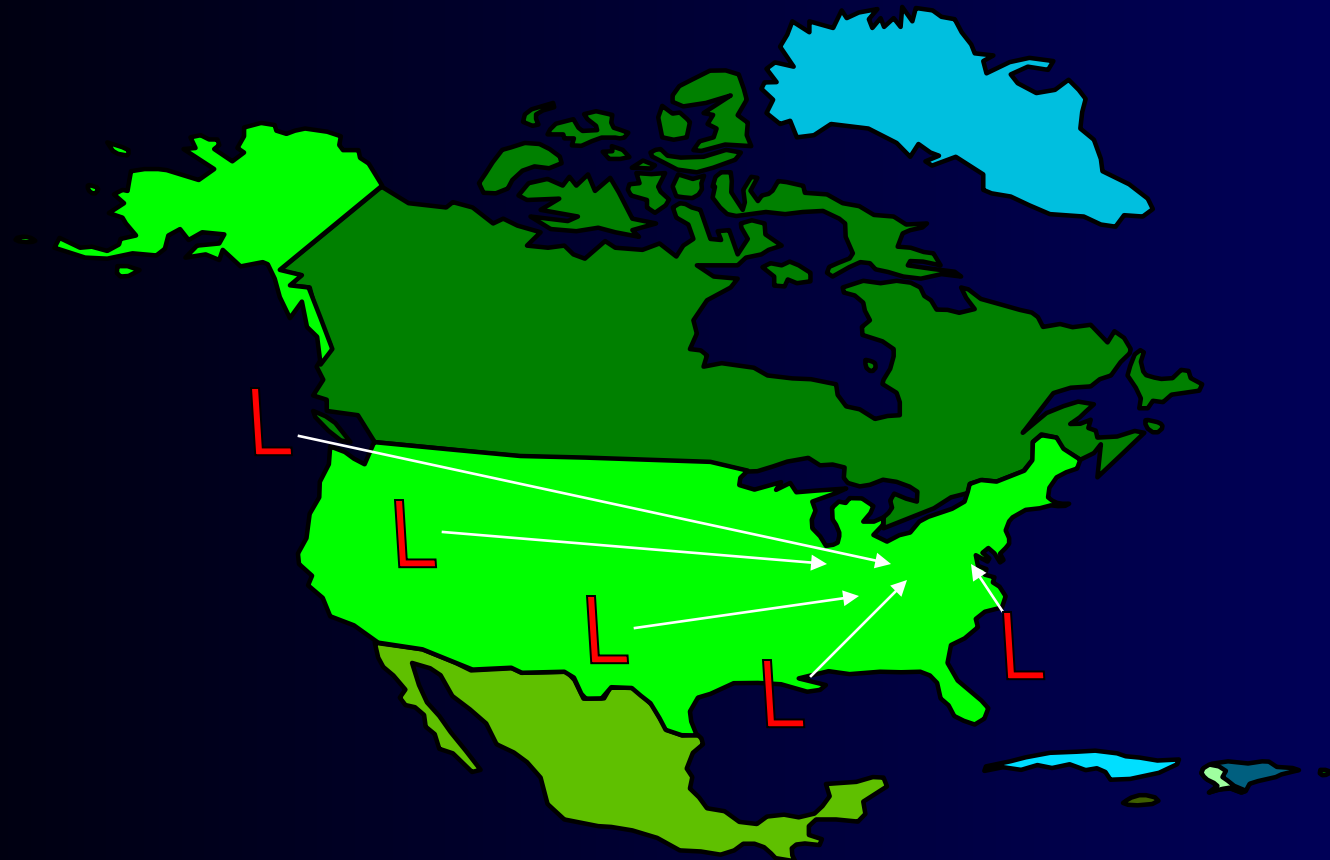
## (Summer Season)

- Gust Spread (15 knots or greater)
- Crosswind (21 knots or greater)
- Surface Winds (30 knots or greater)
- (LFA) LGT-MDT (or greater) below 10,000feet
- (LFA) Thunderstorms
- WBGT GTE 78F

*Summer Weather, the pattern changes as the Bermuda High moves northwestward and dominates the circulation of air over the eastern United States. At this time, a flow of warm, moist air spreads over the area with winds from the southwesterly quadrant. This region is under the influence of the western quadrant of the Bermuda High. Subsidence is less and instability is greater. With the high relative humidity, only minor lifting is needed to start convective activity. Thunderstorm activity reaches its maximum in July. With the presence of moisture, cumulus clouds prevail during the day time and dissipate by sunset. The track for migratory low pressure systems moves far to the north. Summer is characterized by considerable warm weather including several hot, humid periods. The warmest weather occurs in late July. Haze becomes a significant visibility restrictor under a stationary high pressure area with no change in airmass for several days, the air in the lower 10,000 feet stagnates and the haze/pollution dominates. Summertime frontal thunderstorms occur along the front with the movement of thunderstorms and precipitation through the base signaling frontal passage. With an inactive front, a squall line will precede the frontal zone by 2-4 hours. Frontal passage is identified by pressure tendency and humidity changes.*

# Summer Weather Patterns

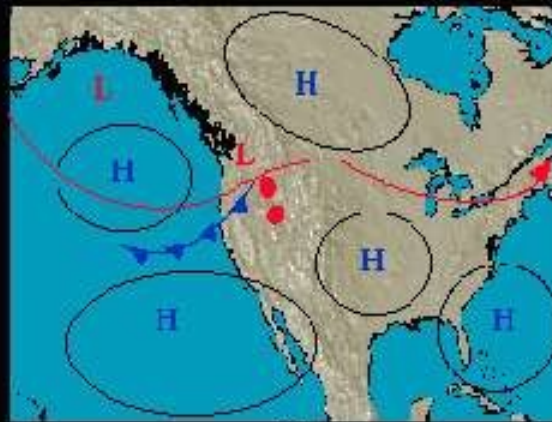
(Typical Storm Tracks)



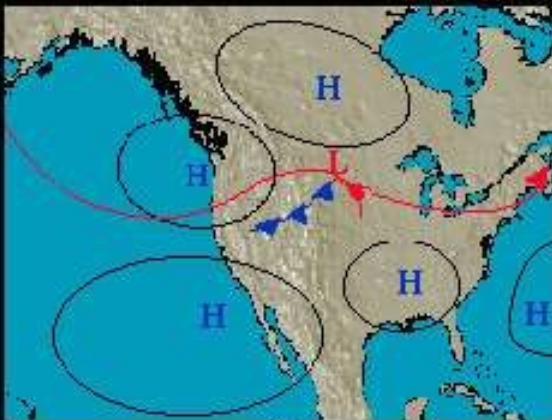




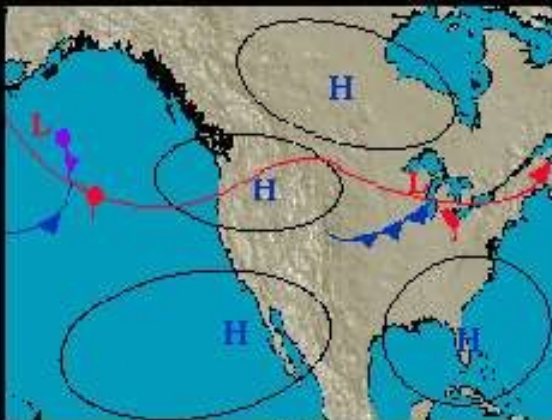
npac1.bmp



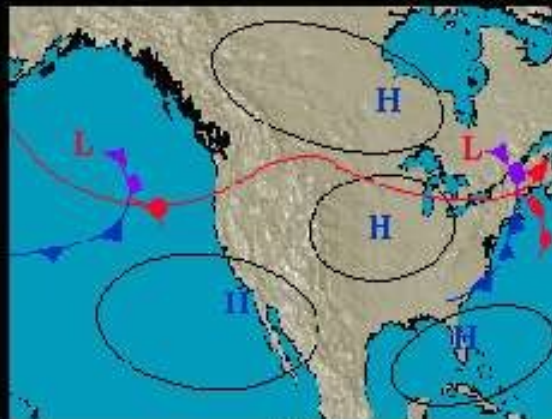
npac2.bmp



npac3.bmp



npac4.bmp

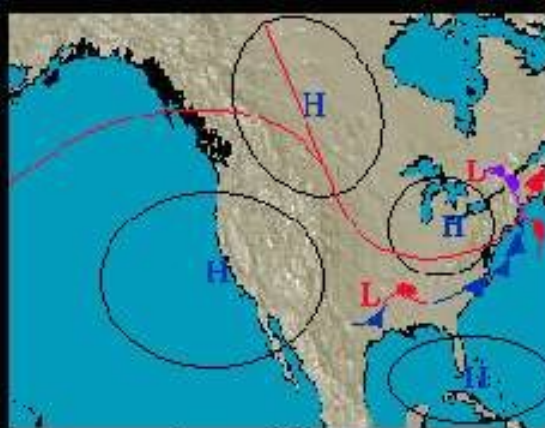


npac5.bmp

*North pacific Low*  
(Year around but Predominate  
Spring/Fall)



texas1.bmp



texas2.bmp



texas3.bmp



texas4.bmp



texas5.bmp

*Texas Low*  
(Spring)





colo1.bmp



colo2.bmp



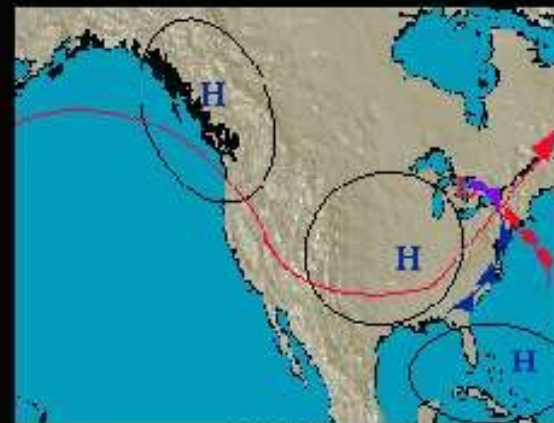
colo3.bmp



colo4.bmp



colo5.bmp

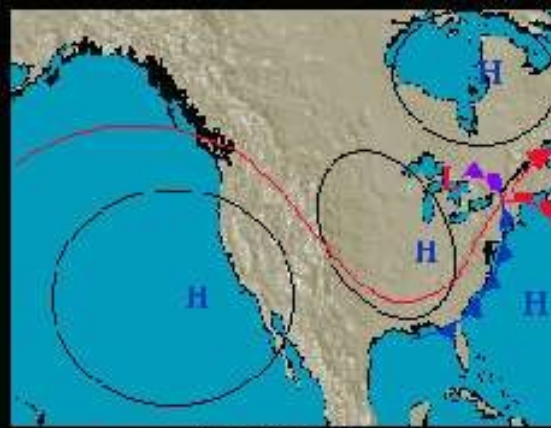


colo6.bmp

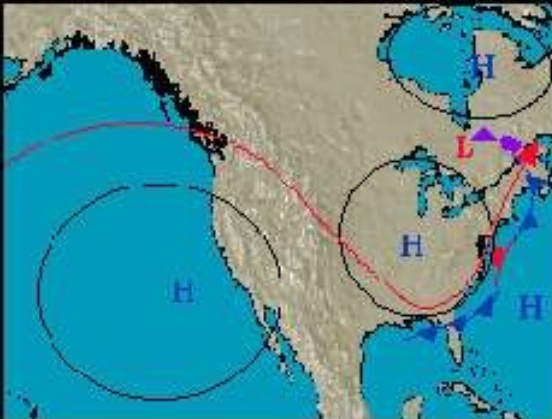
*Colorado Low*  
(Year around)



hatt1.bmp



hatt2.bmp



hatt3.bmp



hatt4.bmp



hatt5.bmp



hatt6.bmp

*Hatteras Low  
(S. Atlantic Low)  
(Spring)*





egulf1.bmp



egulf2.bmp



egulf3.bmp



egulf4.bmp



egulf5.bmp

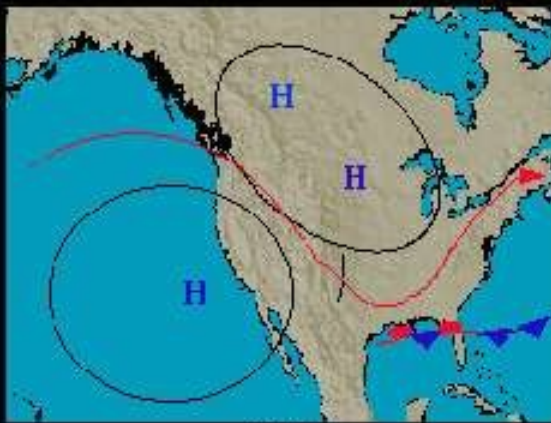


egulf6.bmp

*East Gulf Low  
(Spring)*



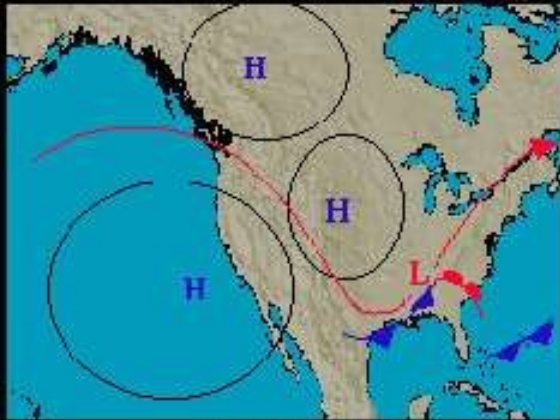
wgulf1.bmp



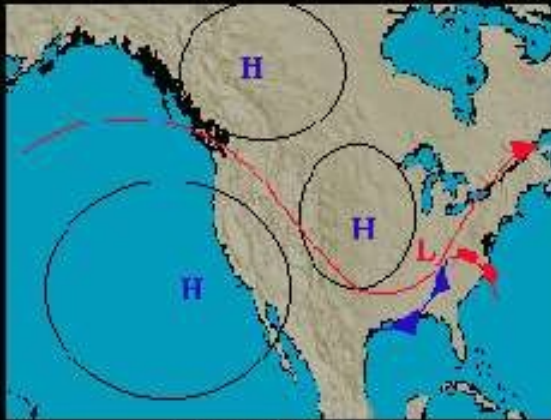
wgulf2.bmp



wgulf3.bmp



wgulf4.bmp



wgulf5.bmp



wgulf6.bmp



wgulf7.bmp

*West Gulf Low  
(through Spring)*





*Burmuda High*  
(Summer)



*Alberta High*  
(Spring/Early Summer)



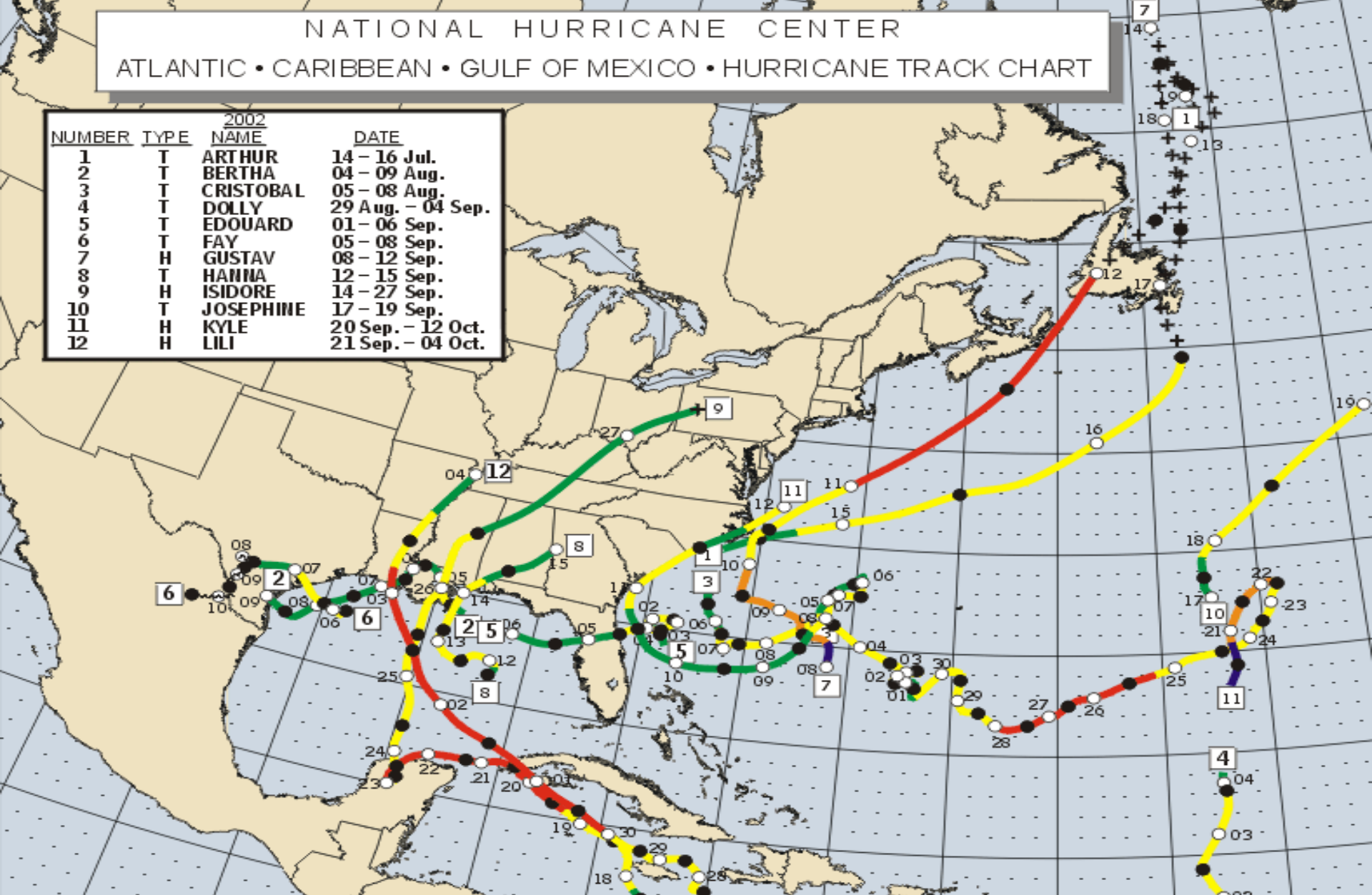


*Hudson Bay High*  
(Year around)

# NATIONAL HURRICANE CENTER

## ATLANTIC • CARIBBEAN • GULF OF MEXICO • HURRICANE TRACK CHART

NUMBER	TYPE	2002 NAME	DATE
1	T	ARTHUR	14 - 16 Jul.
2	T	BERTHA	04 - 09 Aug.
3	T	CRISTOBAL	05 - 08 Aug.
4	T	DOLLY	29 Aug. - 04 Sep.
5	T	EDOUARD	01 - 06 Sep.
6	T	FAY	05 - 08 Sep.
7	H	GUSTAV	08 - 12 Sep.
8	T	HANNA	12 - 15 Sep.
9	H	ISIDORE	14 - 27 Sep.
10	T	JOSEPHINE	17 - 19 Sep.
11	H	KYLE	20 Sep. - 12 Oct.
12	H	LILI	21 Sep. - 04 Oct.



*Tropical Storm / Hurricane Season*  
*1 Jun - 30 Nov*

# Seasonal Unique Hazards

- Turbulence
  - Definitions
  - Types
  - Effects on aircraft (Fixed)

# Seasonal Unique Hazards

- Turbulence

Definition

IRREGULAR MOVEMENTS OF AIR IN THE ATMOSPHERE

- Low Level Wind Shear

Wind shear is a change in wind direction, wind speed, or both, along a given direction in space. The strongest wind shears are associated with abrupt changes in wind direction and/or speed over a short distance.

Low

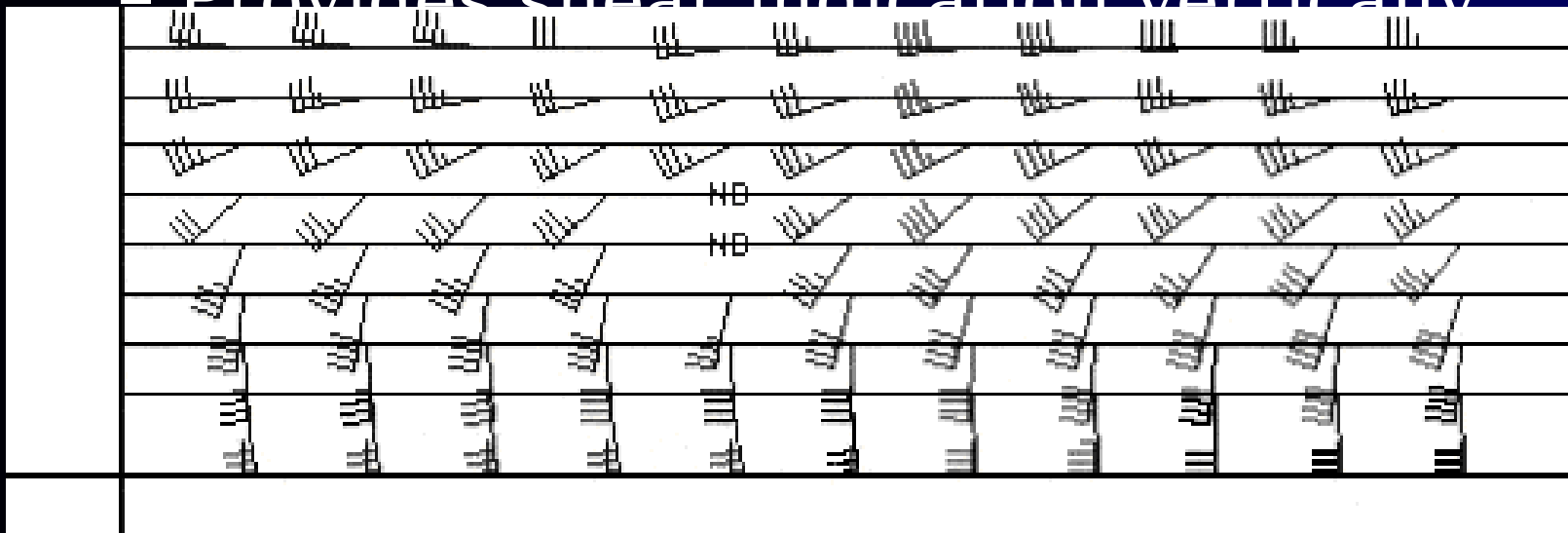
level wind shear is particularly hazardous to aviation operations. It occurs so close to the surface that pilots often do not have enough time to

compensate for its effects. Wind shear is often associated with fronts, inversions, and thunderstorms

# Seasonal Unique Hazards

## (Turbulence)

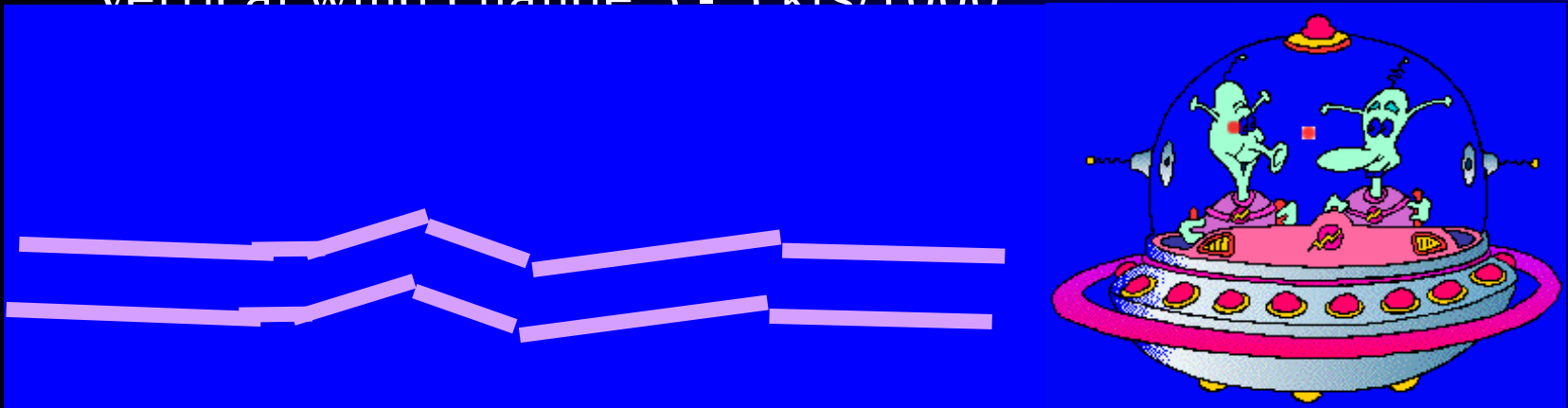
- VAD Wind Profile
  - Useful in keeping track of significant wind speed and direction change near the radar
  - Provides shear indication vertically



# Seasonal Unique Hazards

## (Turbulence)

- Light Turbulence
  - Small changes in the aircraft attitude and/or altitude
  - Small variations in air speed of 5 to 14 knots
  - Vertical gust velocity is 5 to 19 feet per second
  - Horizontal wind change <25 kts/90 miles
  - Vertical wind change 3 - 5 kts/1000'

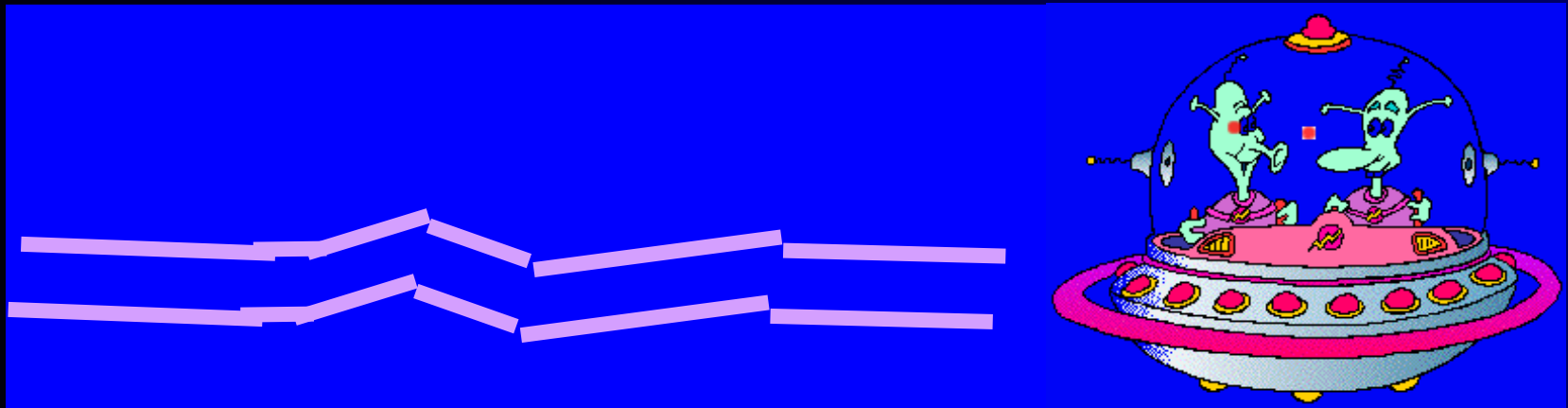




# Seasonal Unique Hazards

## (Turbulence)

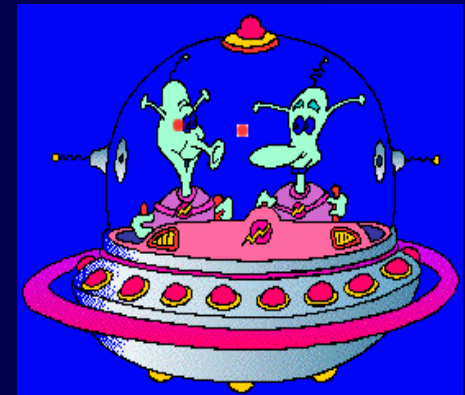
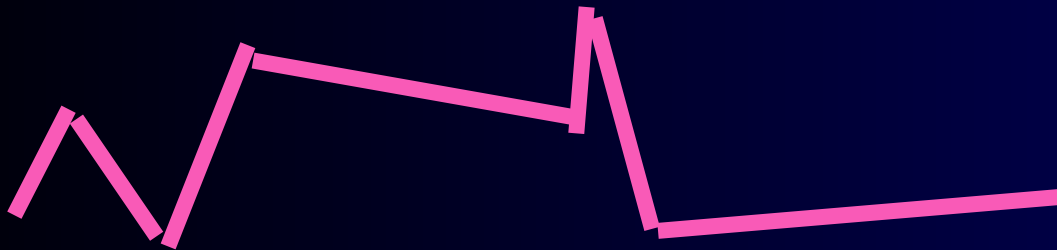
- Moderate Turbulence
  - Moderate changes in the aircraft attitude and/or altitude
  - Small variations in air speed of 15 to 24 knots
  - Vertical gust velocity is 20 to 30 feet per second
  - Horizontal wind change 25 - 49 kts/90mi
  - Vertical wind change 6 - 9 kts/1000'



# Seasonal Unique Hazards

## (Turbulence)

- Severe Turbulence
  - Abrupt changes in attitude and/or altitude, Aircraft may be out of control for short periods of time
  - Large variations in air speed  $\geq 25$  knots
  - Vertical gust velocity is 36-49 feet per second
  - Horizontal wind change 50 - 89 kts/90mi
  - Vertical wind change 10 -15 kts/1000'

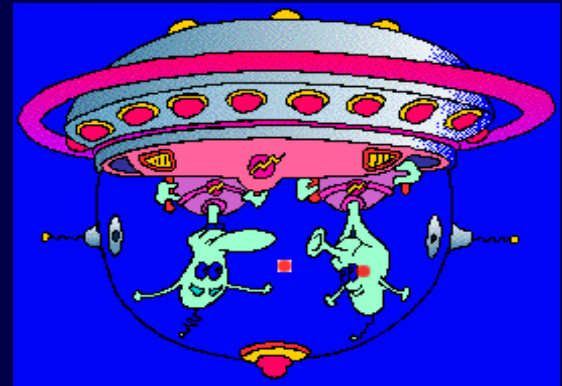
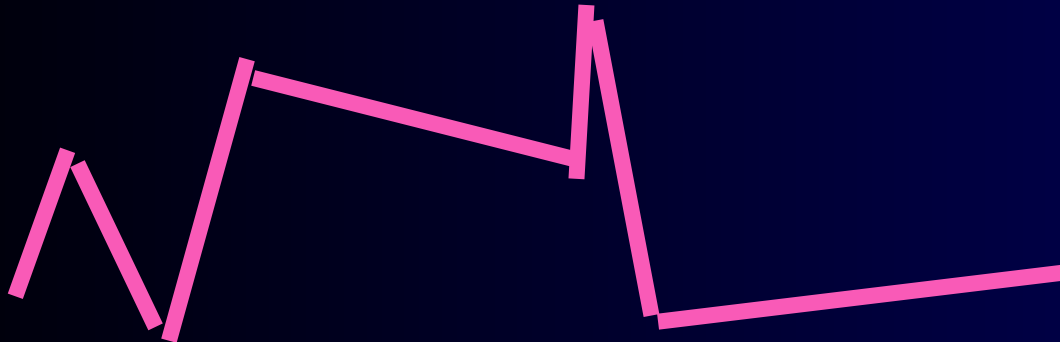




# Seasonal Unique Hazards

## (Turbulence)

- Extreme Turbulence
  - Aircraft is tossed violently about and is practically impossible to control
  - Structural damage possible
  - Large variations in air speed  $\geq 25$  knots
  - Vertical gust velocity is  $\geq 50$  feet per second
  - Horizontal wind change  $>90$  kts/90nm
  - Vertical wind change  $>15$  kts/1000'



# Seasonal Unique Hazards

## (Turbulence)

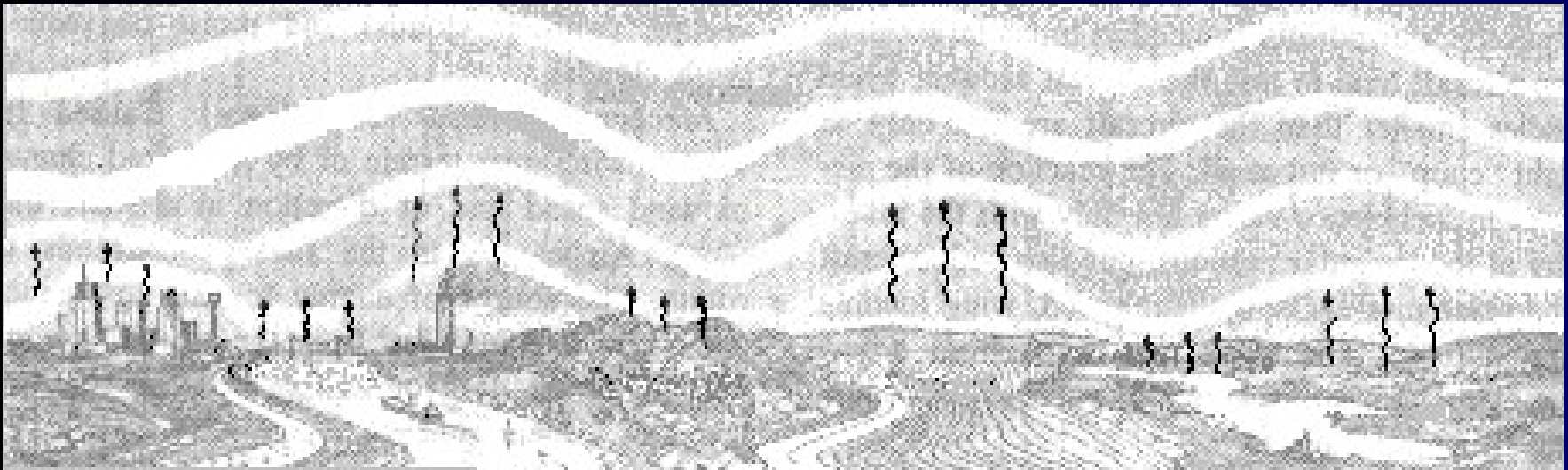
- Turbulence Categories
  - Convective or Thermal
    - Due primarily to surface heating
  - Mechanical (Most common in Winter for LFA)
    - Mechanical turbulence is caused by horizontal and vertical wind shear and is the result of pressure gradient differences, terrain obstructions, or frontal zone shear. There are three types of mechanical turbulence: Clear Air Turbulence (CAT), Mountain Wave (MV), and Wake Turbulence.

# Seasonal Unique Hazards

## (Turbulence)

- Thermal

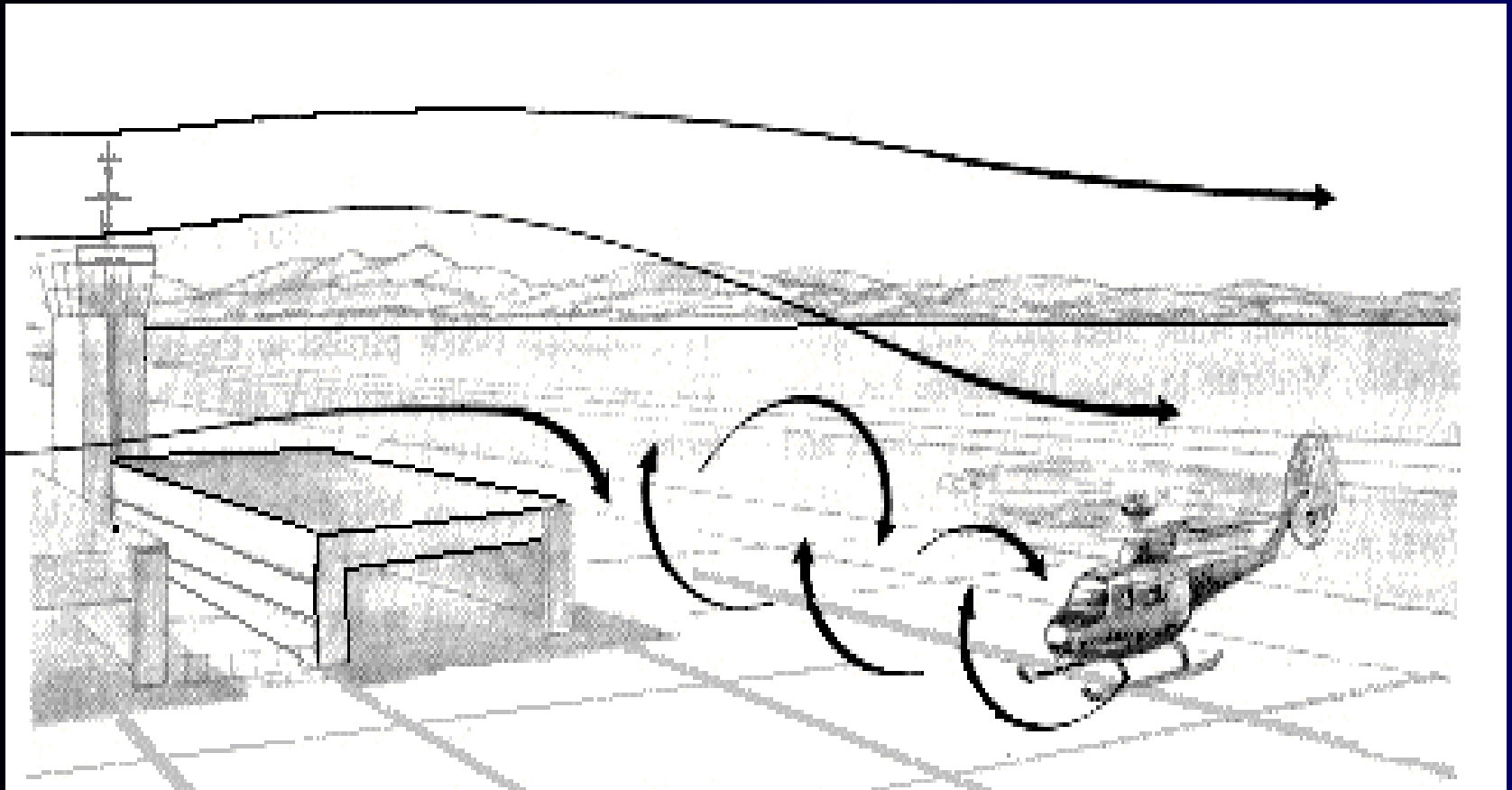
- Warm air rising creates eddies and gusts which causes “rough air”



reflectivity

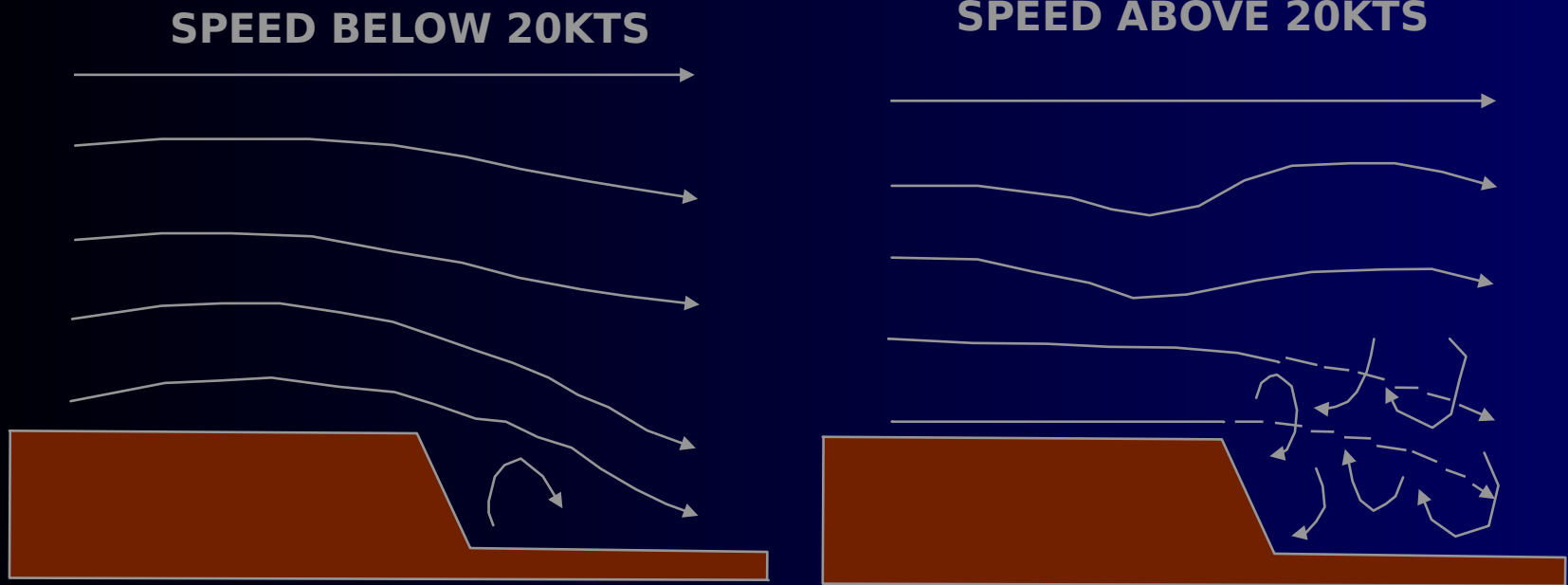
# Seasonal Unique Hazards

## Turbulence (Mechanical)



# Mechanical Turbulence

- Terrain effects on wind flow



# Seasonal Unique Hazards

## (Turbulence)

- Fixed Wing
  - Directly proportional to speed
  - Inversely proportional to weight
  - Directly proportional to the wing area



# Seasonal Unique Hazards

## (Thunderstorms)



# Seasonal Unique Hazards

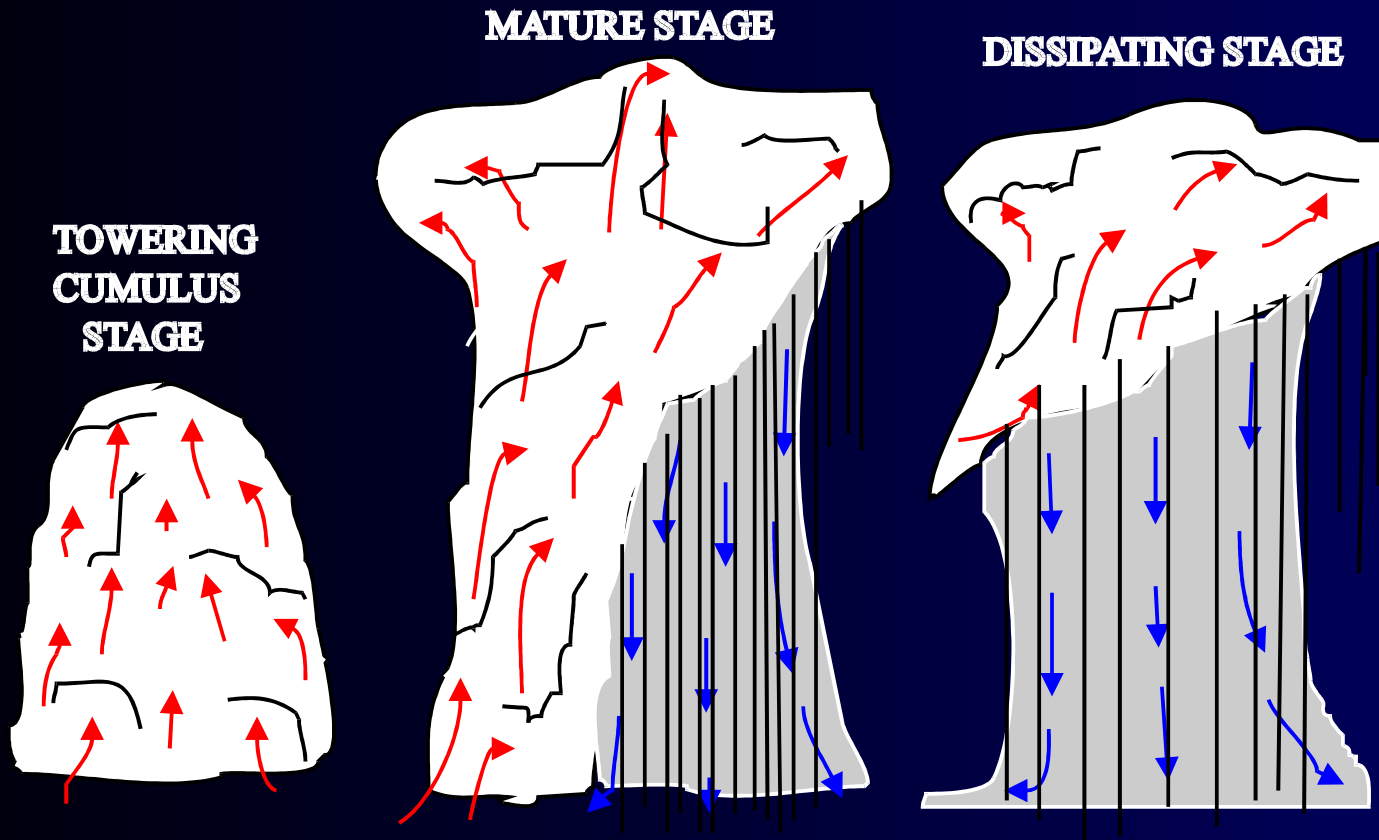
## (Thunderstorm Causes)

- AIRMASS-MORE OR LESS RANDOMLY GENERATED BY
- SURFACE HEATING IN A MARITIME TROPICAL AIRMASS.
  - USUALLY FROM 1500L-1900L
  - GENERALLY SLOW MOVING AND NON-SEVERE
- MESOSCALE CONVECTIVE COMPLEX (NOCTURNAL)
- FRONTAL-EITHER IMBEDDED NEAR WARM FRONTS OR
- ALONG AND AHEAD OF COLD FRONTS.
- SQUALL LINES-OCCUR AHEAD OF FAST MOVING COLD
- FRONTS.



# Seasonal Unique Hazards

## (Thunderstorm Stages)



# Seasonal Unique hazards

## (Thunderstorms Effects)

- SEVERE ICING/TURBULENCE
- HAIL
- MICROBURSTS
- GUSTY SURFACE WINDS
- FLASH FLOODS
- LLWS
- LIGHTNING

# Seasonal Unique Hazards

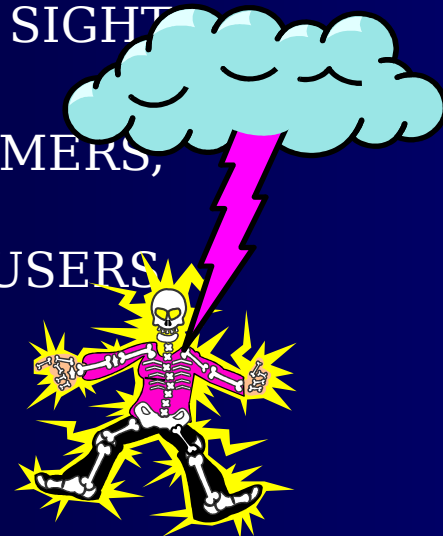
(Thunderstorms/Lightning)



# Seasonal Unique Hazards

## (Thunderstorms/Lightning)

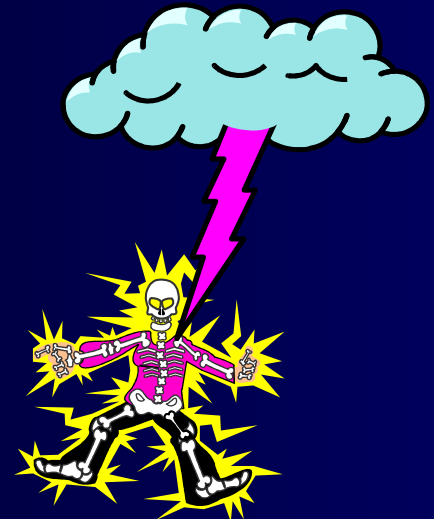
- MOST CASUALTIES OCCUR ON SUMMER AFTERNOONS
- AIR IS HEATED TO 50,000F, HOTTER THAN SUN'S SURFACE
- LIGHTNING HAS APPROXIMATELY A 2" DIAMETER
- LIGHTNING TRAVELS 100,000 TIMES FASTER THAN THE RESULTANT SHOCK WAVE (THUNDER, 90,000 MILES/SEC)
- DISTANCE FROM A THUNDERSTORM CAN BE ESTIMATED BY MEASURING THE DIFFERENTIAL BETWEEN SIGHT AND SOUND (5 SECONDS PER MILE)
- MOST COMMON VICTIMS ARE BOATERS, SWIMMERS,
- GOLFERS, BIKERS, AND OUTDOOR PAYPHONE USERS



# Seasonal Unique Hazards

## (Lightning Safety Tips)

- STAY INDOORS
- STAY OFF THE PHONE
- STAY OUT OF THE TUB
- IF CAUGHT OUTDOORS:
- AVOID TALL OBJECTS SUCH AS ISOLATED TREES!
  - ENSURE YOU'RE NOT THE HIGHEST THING AROUND
  - IF YOU FEEL HAIR ON BACK OF NECK RAISE UP,
  - ASSUME THE POSITION!



# Weather Station Info

- Winter Hours:
  - 0530L - 2130L (M-F) CLOSED HOILDAYS
  - \*Standby other times

Alternate briefing services (Scott AFB)

DSN 675-9755,

Fax DSN-4855,

Commercial 618-256-XXXX

# Weather Station Info

- Web services are available for pre-flight planning purposes at: <http://weathers.belvoir.army.mil>
  - Select Aircrew Page
  - Will be prompted for login/password. Contact the weather station if you do not have this information.
- 175-1 briefings can be requested online from the 15<sup>th</sup> OWS through this page during non duty hours.
- The following slides will instruct you on how to fill out these requests.

Sky Condition

Visibility / Weather

Min Altimeter

Winds

Max Temp

Mission Execution Forecast

34. WEATHERED 35. FL

37. VOID TIME 38. EXTENDED

2

DD Form 175-1, SEP 89

Flight Weather Request

>=030 FEET

>=

<15 KTS

Planning Matrix

Point Weather Warnings



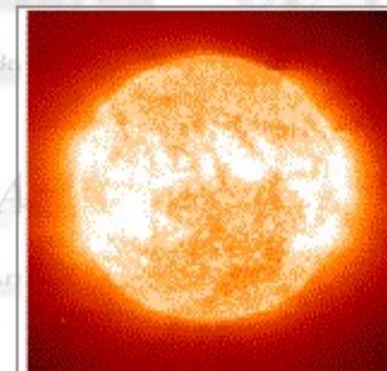
Solar/Lunar



NWS State Warnings, Watches and Forecasts



Airfield Visibility Markers



Space Weather



# Select State in left dropdown:



## 15th Operational Weather Squadron

[Aircrew](#)[Meteorologist](#)[Forecast Funnel](#)[Local Weather](#)[Links](#)[Change AOR](#)[Feedback](#)[HOME](#) > [AIRCREW](#) > [SETUP](#)

Northeast Conus

31 Jan

[Home](#)  
[Request Briefing](#)  
[Edit Request](#)  
[Retrieve Briefing](#)  
[Mission Profiles](#)

### Request a Briefing

Use the forms below to either request a briefing by unit or by saved mission profile.

If you have a mission profile but you can not find it under your unit, please try selecting 'Transient/Other' as your unit. If you find your unit under 'Transient/Other', please contact our [Customer Liaison](#).

#### By Unit

Select your state or other:

– Please Select –

New York

North Dakota

Ohio

Pennsylvania

Rhode Island

South Dakota

Transient

Vermont

Virginia

West Virginia

Wisconsin

[Get Unit](#)

#### By Mission Profile

Select your unit:

[Get Profiles](#)

# ext, select your unit:

Home  
Request Briefing  
Edit Request  
Retrieve Briefing  
Mission Profiles

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If you have a mission profile but you can not find it under your unit, please try selecting 'Transient/Other' as your unit. If you find your profile under 'Transient/Other', please contact our [Customer Liaison](#).

### By Unit

Now select your unit:

12 Aviation

Army Ghost

DC ARNG, DAVISON AA

DET 04 - OSACOM

Ft. Belvoir-RFC (OSACOM)

Nite Vision

### By Mission Profile

Select your unit:

Get Profiles

***Fill out request and include all pertinent information. Be sure to include email address if the brief is to be emailed.***

### Part I - Unit Information

**Ft. Belvoir-RFC (OSACOM): Ft. Belvoir, VA**

Aircrew POC:  \* Phone:   
Fax:  E-Mail:

### Part II - Aircraft Information

Type:  \* Tail Number:   
Call Sign:  Either a Tail # OR call sign is required

### Part III - Mission Information

Departure Day:  \* AUTO  
POPULATE Departure Time (Z):  \*  
Departure Point:  \* Flight Level:  \*

Destination Type

ICAO

Arrival Date

Arrival Time (Z)

Primary









\*

\*









\*

# ***Include any special AR, Route, or Drop Zone information:***





## **Part IV - Air Refueling Tracks**

<u>AR Track Name</u>	<u>Start Day</u>	<u>Start Time</u>	<u>End Day</u>	<u>End Time (Z)</u>	<u>Flight Level (MSL)</u>
<input type="text"/>	<input type="text"/> 	<input type="text"/>	<input type="text"/> 	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/> 	<input type="text"/>	<input type="text"/> 	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/> 	<input type="text"/>	<input type="text"/> 	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/> 	<input type="text"/>	<input type="text"/> 	<input type="text"/>	<input type="text"/>





## **Part V - MOA Information**

<u>MOA Name</u>	<u>Start Day</u>	<u>Start Time</u>	<u>End Day</u>	<u>End Time (Z)</u>	<u>Flight Level (MSL)</u>
<input type="text"/>	<input type="text"/> 	<input type="text"/>	<input type="text"/> 	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/> 	<input type="text"/>	<input type="text"/> 	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/> 	<input type="text"/>	<input type="text"/> 	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/> 	<input type="text"/>	<input type="text"/> 	<input type="text"/>	<input type="text"/>

## **Part VI - Drop Zone Information**

<u>Drop Zone Name</u>	<u>Drop Day</u>	<u>Drop Time (Z)</u>	<u>Altitude</u>
<input type="text"/>	<input type="text"/> 	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/> 	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/> 	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/> 	<input type="text"/>	<input type="text"/>

## **Part VII - IR & VR Route Information**

<u>Route Name</u>	<u>Start Day</u>	<u>Start Time</u>	<u>End Day</u>	<u>End Time (Z)</u>	<u>Flight Level (MSL)</u>
<input type="text"/>	<input type="text"/> 	<input type="text"/>	<input type="text"/> 	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/> 	<input type="text"/>	<input type="text"/> 	<input type="text"/>	<input type="text"/>

***Include any special requests in the remarks block.  
This is where you will place any requests for  
additional transmission, I.e. email and fax, etc.***

***Select brief time and primary delivery method.***

***Lastly, you may elect to save this request as a  
mission profile if it has not already been done and  
if it is a recurring mission.***

Part VII - IR & VR Route Information					
Route Name	Start Day	Start Time	End Day	End Time (Z)	Flight Level (MSL)
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Part VIII - Additional Comments/Instructions	
<input type="text" value="Please fax to the primary number but send a courtesy fax to the base weather station 656-7314"/>	

Brief Day:	<input type="text" value="2/5/2003"/>	Brief Time (Z):	<input type="text" value="09:30"/>
Delivery Method: <input type="radio"/> Internet <input type="radio"/> E-Mail <input checked="" type="radio"/> Fax <input type="radio"/> Phone			
Save this request in a Mission Profile? <input checked="" type="radio"/> no <input type="radio"/> yes <input type="text" value="provide a profile name"/>			

# Verify data and select continue

## Unit Info

**Unit:** Ft. Belvoir-RFC (OSACOM) **POC:** LFI AM Shuttle **Phone:** 656-7026  
**Fax:** 656-7572 **E-mail:**

## Aircraft Info

**type:** BE20 **Tail #:** **sign:** Pat401

## Mission Info

**Depart Pt:** KDAA **Flight Level:** 080 **Depart Date:** 2/5/2003 **Depart Time:** 10:30

Type	Icao	Arrival Date	Arrival Time
Primary	KLFI	2/5/2003	11:10
Destination	KDAA	2/5/2003	12:00
Destination	KLFI	2/5/2003	13:20
Destination	KDAA	2/5/2003	14:15

## AR Tracks

Name	Flight Level	Start Day	Start Time	End Day	End Time
No Tracks Entered					

## MOAs

Name	Flight Level	Start Day	Start Time	End Day	End Time
No MOAs Entered					

## Drop Zones

Name	Flight Level	Drop Day	Drop Time
No Drop Zones Entered			

## IR&VR Routes

Name	Flight Level	Start Day	Start Time	End Day	End Time
No Routes Entered					

## Comments

Please fax to the primary number but send a courtesy fax to the base weather station 656-7314

## Other

**Brief Date:** 2/5/2003 **Brief Time:** 09:30 **Delivery Method:** Fax **Profile:** Not Saved as a Profile

Continue

***Print a copy of this page or write down the briefing ID for your records. This is your confirmation you submitted the brief***

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[Mission Profiles](#)

## Request Submitted

---

Your briefing request has been submitted. Please note your briefing id.

**Briefing Id:** 31010316421800

**Call Sign:** Pat401

**POC:** LFI AM Shuttle

**Brief Time:** 2/5/2003 09:30Z

***If necessary you may go back and edit your request for any changes that may occur. Select Edit Request and input your Briefing ID. Follow the above steps and edit those areas that need changed and submit again.***

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Request Briefing  
Edit Request  
Retrieve Briefing  
Mission Profiles

## Edit Briefing Request

---

To edit a briefing request, please enter the briefing id you were given when you submitted your request.

If your briefing is not found, please make sure the id entered is correct. If the id entered is correct, your briefing may already be in progress and can no longer be modified from the web. Please contact our briefer at DSN: 576-9701/9755 or COM: (618)256-9701/9755 for assistance.

Enter Briefing ID:

Edit Request



***Lastly, in the event your briefing does not arrive through requested means, you may retrieve the briefing by selecting Retrieve Briefing and input your Brief ID.***

***In the event you have any problems you may contact the briefer directly by calling the listed number below.***

Home  
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Edit Request  
Retrieve Briefing  
Mission Profiles

## Retrieve Briefing

To retrieve a published briefing, please enter the briefing id you were given when you submitted your request.

- If your briefing is not found, please make sure the id entered is correct. If your id is correct and your briefing is still not found, it may not yet be published. Please contact our briefer at DSN: 576-9701/9755 or COM: (618)256-9701/9755 for assistance.

Enter Briefing ID:

Retrieve

# Space Weather Info

In addition to terrestrial weather, space weather plays a key role in the warfighters' ability to plan and conduct operations. Unlike terrestrial weather requirements, the operational needs of the warfighter (as they pertain to space weather) are not well documented, and may not be as well understood. To that end, the Air Force Weather Agency has taken many steps to provide products and training to better understand space weather and its potential effects on operations. Everything from GPS readings to HF communications and SATCOM may be effected during high solar activity.

This will be a quick overview of the products OL-A, 18<sup>th</sup> WS, will provide on a routine basis. This overview will also include URL links to more in depth training material and available products currently in use to support the warfighters. Specialized space weather support can be provided on request.

# Space Weather is now provided on the new DII Blocks 15 and 16.

PART II - ENROUTE & MISSION DATA																
14. FLT LEVEL/WINDS/TEMP			<input type="checkbox"/> SEE ATTACHED		15. SPACE WEATHER			16. SOLAR/ LUNAR		LOCATION						
							NO IMPACT		MARGINAL		SEVERE					
					BMNT		Z									
					FREQ						SR		Z MR			
					GPS						SS		Z MS			
					RAD						EENT		Z ILLUM		%	
17. CLOUDS AT FLT LEVEL					18. OBSCURATIONS AT FLT LEVEL RESTRICTING VISIBILITY											
<input type="checkbox"/> YES		<input type="checkbox"/> NO		<input type="checkbox"/> IN AND OUT		<input type="checkbox"/> YES		<input type="checkbox"/> NO		TYPE						

# Space Weather is also provided on the Mission Forecast (MEF) in the Solar and Lunar Data b

Solar and Lunar Data				
SR: 03/0713L	SS: 03/1732L	MR: 03/0848L	MS: 03/1951L	3%
Space Wx Impact	Low=L Moderate=M Severe=S		Freqs: L	GPS: L
Flight Weather Debrief				
Use the Flight Weather Debrief to provide the Weather Staff				

# Space Weather Info

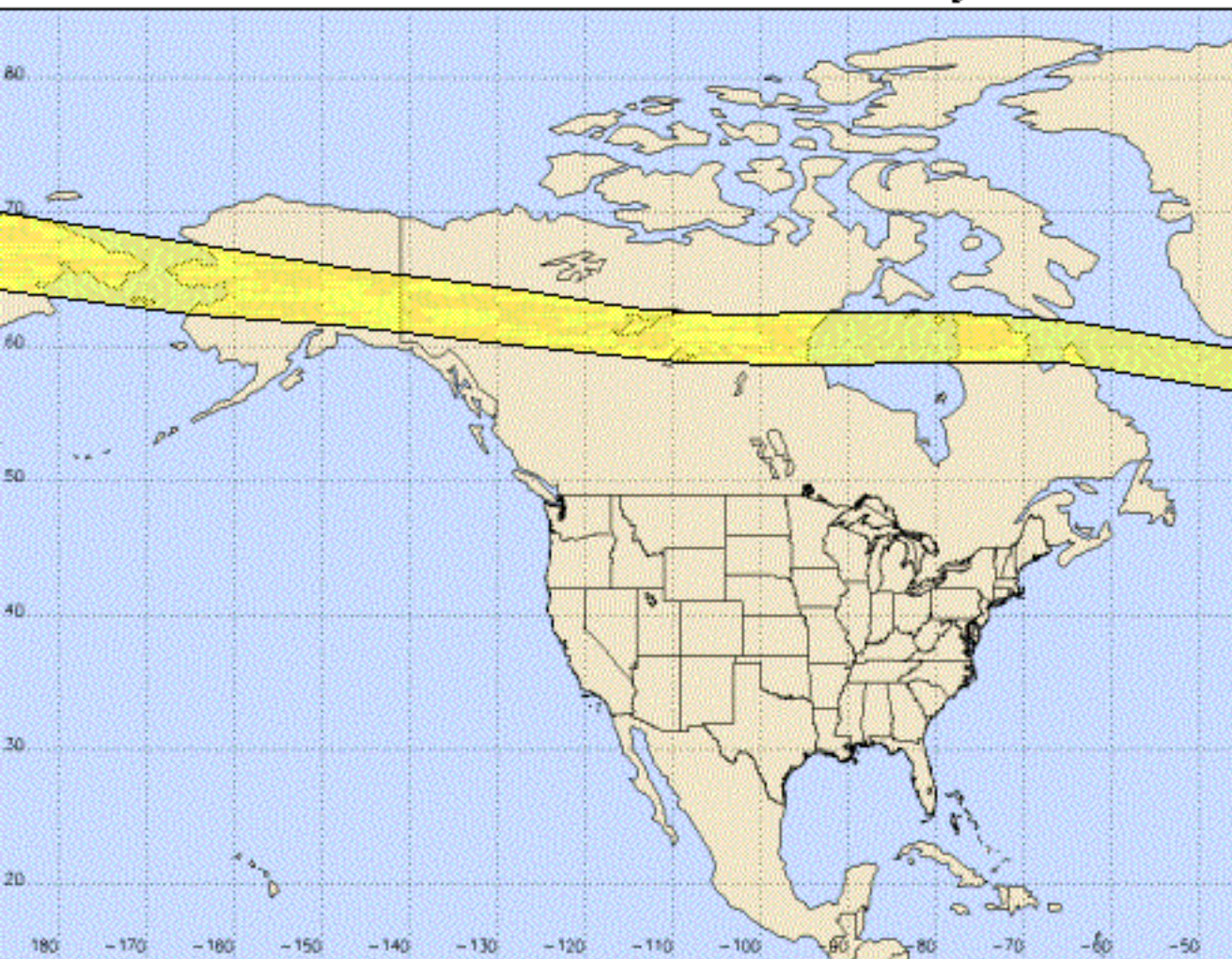
**At this time we currently provide space weather information on the effects of solar activity on the radio propagation of HF signals, effects on SATCOM (GPS, etc.) and HF Communications (frequency shifts). The data used for these new blocks comes from products provided by the Space Weather Prediction Center (SWPC). These products may be obtained from AFWA's web site, or by clicking on the MEF link on our Aircrew Page and selecting Daily Space Weather Impact Graphics.**

**The following 3 slides will show you examples of the products provided by SWPC. For detailed information on these products and additional information on Space Weather training please download and read the Space Weather primer, which describes these products in detail, located at**

**<http://weathers.belvoir.army.mil/aircrew/Primer.doc>**

# Ionospheric Conditions Impacting High Frequency (HF) Communications and Other HF Operations

***Forecast Valid: 03/1200Z - 03/1800Z February 03***



These regions represent  
conditions that can cause  
marginal HF operations

These regions represent  
disturbed conditions that can  
severely degrade HF  
operations

Press the HF Communications  
“Help” key on the JAAWIN Space  
Weather menu for assistance.

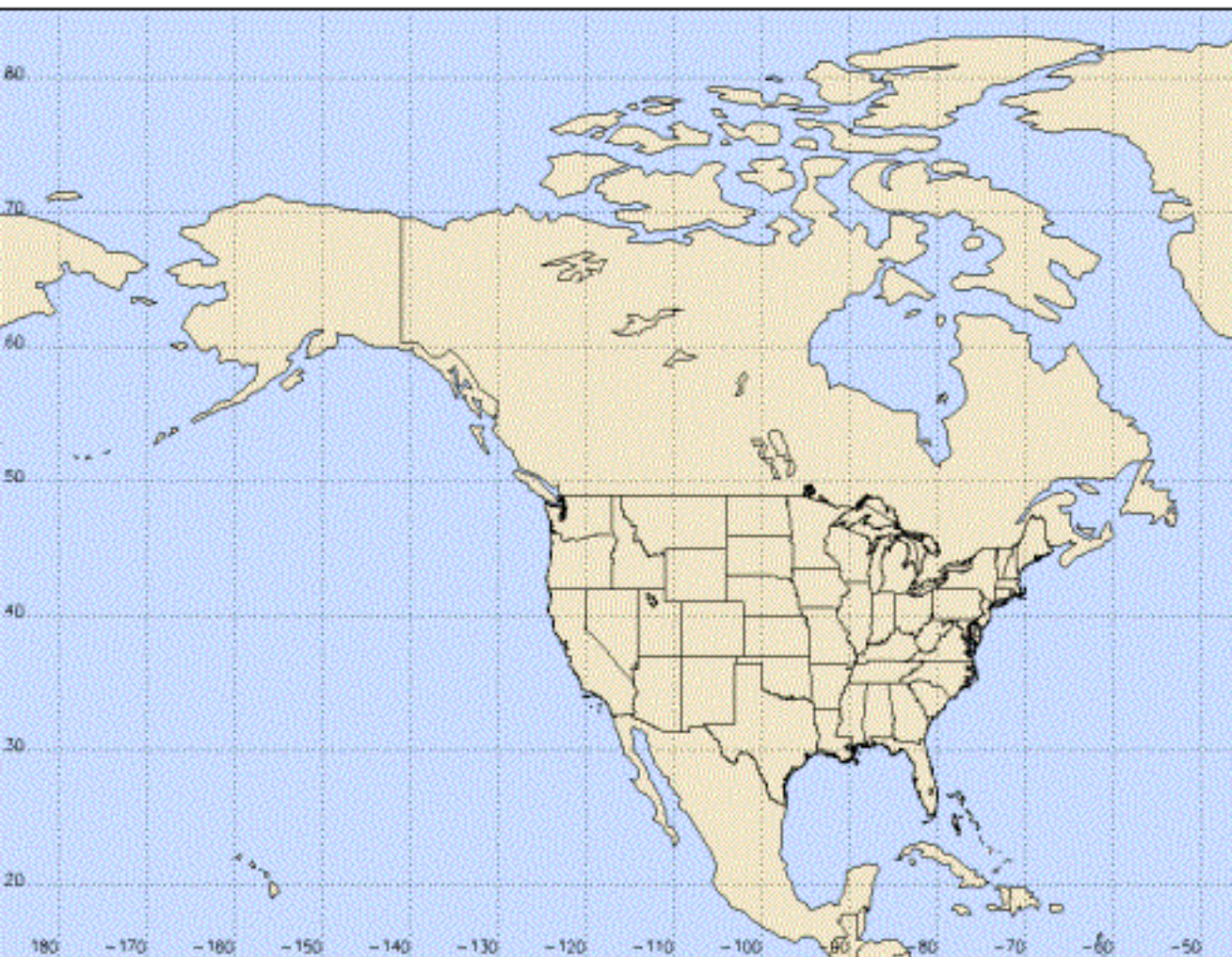
For additional  
information/feedback please  
call AFWA/XOGX at  
Comm. (402) 232-8087  
DSN 272-8087

**Additional Comments:**



## Ionospheric Conditions Impacting UHF SATCOM Operations

***Forecast Valid: 03/1200Z - 03/1800Z February 03***



These regions represent conditions that can cause marginal UHF operations

These regions represent disturbed conditions that can severely degrade UHF operations

Press the UHF Communications "Help" key on the JAAWIN Space Weather menu for assistance.

For additional information/feedback please call AFWA/XOGX at Comm. (402) 232-8087 DSN 272-8087

**Additional Comments: No significant space weather disturbances expected to affect UHF or satellite communications.**

# Space Environment Global Situational Awareness

Valid: 03/1200Z Feb 03

## Observed Space Environmental EVENTS

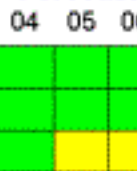


## Today



## 3 - Day

### Forecast



See Discussion  
and Events Slide  
for Details

## Probable Space Environmental IMPACTS



## Today



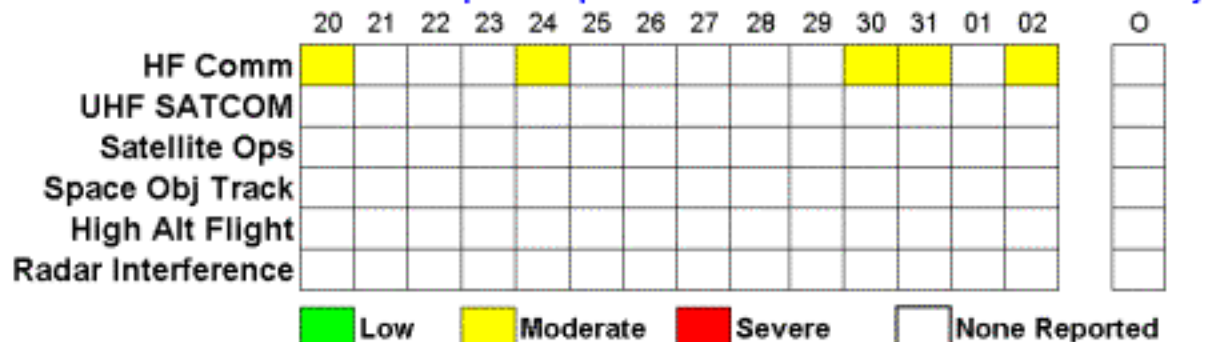
## 3 - Day

### Forecast



See Discussion and  
Impacts Slide for Details  
Check regional products  
for specific details in your  
AOR

## Reported Space Environmental IMPACTS

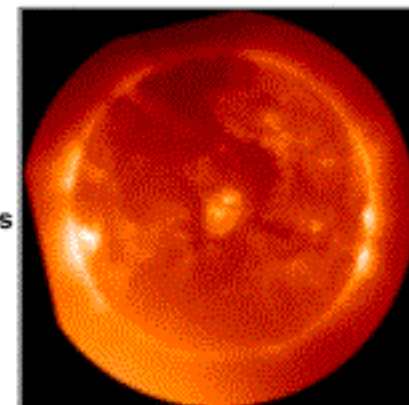


## Today



See Impacts  
Slide for Details

Image Valid 03/1135Z



Crane/Lankford  
Issued 03/1200Z

# Space Weather Info

## Additional Space Weather Links

### **Space Weather Training and Requirements Module**

(used for additional training and to help you determine if you have space weather requirements. This is where it all starts)

<https://midway.peterson.af.mil/weather/module.html>

### **Air Force Weather Agency Training Division**

(This site covers all Air Force Weather training, but includes a good section on space weather.)

[https://wwwmil.offutt.af.mil/afwadnt/Training\\_Products/Space%20Weather/space\\_weather.htm](https://wwwmil.offutt.af.mil/afwadnt/Training_Products/Space%20Weather/space_weather.htm)

### **Joint Air Force & Army Weather Information Network**

(Main AFWA Space Weather page. Provides products, familiarization/training material, and links to other pertinent space weather sites.)

<https://www.afwin.afwa.af.mil/space.html>



# What can you do to help us?



*Please use the links below to fill out the completion form either online or by printing a blank copy and faxing. Please follow instructions outlined on the forms. If the blank form will not open in your browser, you may obtain a copy by contacting the Base*